

Notice of Allowability

Application No.

10/602,827

Examiner

Tuan N. Nguyen

Applicant(s)

TSUNODA, ATSUO

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 7/25/2005.
2. ☒ The allowed claim(s) is/are 2-5.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 9/15/2005.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Response to Amendment

1. In responding to applicant's response filed 07/25/2005 claims 2-4 have been amended, and claim 1 has been canceled. Telephone interviewed on 09/15/2005 – claim 5 has been amended, and claim 6 has been canceled.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below, to the amended claim 5 should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview on September 15, 2005 with Ms. Deborah Gladstein (Attorney for Applicant, Reg. No. 43,636).

Claim5:

5 (Currently amended). A semiconductor laser device manufacturing method comprising the steps of:

forming at least an active layer, a first clad layer, a second clad layer and upper layers including a cap layer on a substrate; and

forming a ridge section comprised of the second clad layer and the upper layers by subjecting the second clad layer and the upper layers to dry etching and subsequently to wet etching, the upper layers protruding in both widthwise directions beyond the second clad layer providing a step of not smaller than 0.13 μm between the upper layers and the second clad layer; and

forming a current constriction layer provided on both sides of the ridge section, and a portion of the current constriction layer, the portion being located outside a portion brought in contact with the ridge section and having surfaces formed flatly, is formed to have a thickness smaller than a thickness of the second clad layer of the ridge section.

Claim 6 is CANCELED.

REASON FOR ALLOWANCE

Allowable Subject Matter

3. The following is an examiner's statement of reasons for allowance, with respect to claims 1, and 5 the references of the record fail to teach or suggest the semiconductor device and method of making:

Claims 1, 5:

A semiconductor with an active layer, a first clad on a substrate and a ridge section constructed of a second clad layer and upper layers including a cap layer on first clad layer, where the upper layer protruding in both widthwise directions beyond the second clad layer, providing a step not smaller than 0.13um between the upper layers and the second clad layer, wherein the constriction layer is located on both sides of the ridge, while a portion of the constriction layer is located outside a portion brought in contact with the ridge section having surfaces formed flatly with thickness smaller than the thickness of second clad layer of the ridge section.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Communication Information

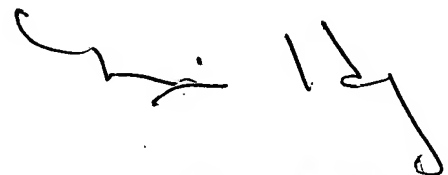
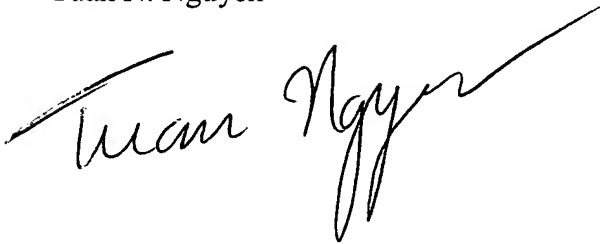
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan N Nguyen whose telephone number is (571) 272-1948. The examiner can normally be reached on M-F: 7:30 - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harvey Minsun can be reached on (571) 272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tuan N. Nguyen



MIN SUN OH HARVEY
PRIMARY EXAMINER
